

# Work Order ID 93795

December 5, 2012 1:42:43 PM

**\*93795\***

Page 1

Item ID: 647.9317

Accept

**\*N900040100\***

Setup Start

**\*NS1\***

Revision ID:

Stop

**\*NS2\***

Item Name: RH Bracket

Start Date: 11/26/12

Start Qty: 10.00

**\*10\***

Cust Item ID:

Required Date: 12/14/12

Req'd Qty: 10.00

**\*10\***

Customer:

Reference:

Run Start

**\*NR1\***

Approvals:

Process Plan:

Date:

Tooling:

Date:

Stop

**\*NR2\***

QC:

Date:

SPC (Y/N):

Date:

Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Tool ID

Tool #

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

Draw Nbr

Revision Nbr

647.9300

100

0.00

**\*100\***

Bandsaw

Jcaspa Bandsaw

Memo

CUT AT 12.0" LONG

0.00

*12-12-20*

*2*

110

0.00

**\*110\***

Outsource5

Outsource-process - Machining

Memo

ISSUE P/O: *18589*  
POSSIBLE SUPPLIER: ARCHER PRECISION

Certificate of conformaty required

0.00

*12-6-12*

*Pto*

115

Receive & Inspect for Damage & Mat'l Certs

0.00

**\*115\***

Packaging

Packaging

Memo

0.00

*12/3/12*

*(1)*



DQA:

Date:

13/6/06

## WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed:

Date:

13/7/26

Work Order update only

☐

Work Order: <u>93795</u>				DISPOSITION		AGAINST DEPARTMENT/PROCESS							
Part No. <u>647.9317</u>				Rework <input type="checkbox"/>		Skid-tube <input type="checkbox"/>		Crosstube <input type="checkbox"/>		Water Jet <input type="checkbox"/>		Engineering <input type="checkbox"/>	
NCR No. <u>13-2889</u>				Scrap <input checked="" type="checkbox"/>		Machining <input type="checkbox"/>		Small Fab <input type="checkbox"/>		Prod. Eng. Coord. <input type="checkbox"/>		Quality <input type="checkbox"/>	
				Use-as-is <input type="checkbox"/>		Thermoforming <input type="checkbox"/>		Finishing <input type="checkbox"/>		Rec/Store/Packaging <input type="checkbox"/>		Other <input type="checkbox"/>	
				Suspected Unapproved <input type="checkbox"/>		Large Fab <input type="checkbox"/>		Composite <input type="checkbox"/>		Supplier <input checked="" type="checkbox"/>			

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design				Qty x1 Part scrap at supplier (Archer)	DAS 16 9-83	Scrap + Destroy no Replace	As 13.07.24	DAS 27 200	DAS 16 9-83
Doc/Data				For the counter bore of being too deep.	Q57042	Have confirmation Attached to email for reason why + what is the corrective action		B-S 31	Q57042
Equip/Tooling				R.C. marking	13/05/31				13/05/31
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY			
Landing Gear		General	
<input type="checkbox"/> Bending	<input type="checkbox"/> Bend	<input type="checkbox"/> Folio/Program	<input type="checkbox"/> Outside Dimensions
<input type="checkbox"/> Centre Not Concentric	<input type="checkbox"/> BOM/Route	<input type="checkbox"/> Grain	<input type="checkbox"/> Over/Under tolerance
<input type="checkbox"/> Cracks	<input type="checkbox"/> Broken/Damage/Defect	<input type="checkbox"/> Hardware	<input type="checkbox"/> Part Incorrect
<input type="checkbox"/> Crimp/Kink/Ripple/Wave	<input type="checkbox"/> Burrs	<input type="checkbox"/> Inspection Incomplete/Unqualified	<input type="checkbox"/> Part Lost/Missing
<input type="checkbox"/> Cuffs	<input type="checkbox"/> Contamination	<input type="checkbox"/> Instructions Incomplete/Unclear	<input type="checkbox"/> Part Moved
<input type="checkbox"/> Crushing	<input type="checkbox"/> Countersink	<input type="checkbox"/> Misaligned/off center	<input type="checkbox"/> Positioned Wrong
<input type="checkbox"/> Heat Treat	<input type="checkbox"/> Cut Too Short	<input type="checkbox"/> Mislabeled	<input type="checkbox"/> Power Loss/Surge
<input type="checkbox"/> Inspection Strip in Tube	<input type="checkbox"/> Drawing	<input type="checkbox"/> Misread	<input type="checkbox"/> Pressure/Forced
<input type="checkbox"/> Marks/Chatter	<input type="checkbox"/> Drill Holes	<input type="checkbox"/> Off-set	<input type="checkbox"/> Set-up
<input type="checkbox"/> Turning Sequence	<input type="checkbox"/> Finish	<input type="checkbox"/> Out of Calibration	<input type="checkbox"/> Temperature/Cure
<input type="checkbox"/> Wave/Twist in Tube	<input type="checkbox"/> Fit/Function	<input type="checkbox"/> Out of Sequence	<input type="checkbox"/> Weld
			<input type="checkbox"/> Wrong Stock Pulled
			<input type="checkbox"/> Other



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**\*93795\***

Page 2

Item ID: 647.9317

Accept

**\*N900040100\***

Setup Start **\*NS1\***

Revision ID:

Stop **\*NS2\***

Item Name: RH Bracket

Start Date: 11/26/12 Start Qty: 10.00

**\*10\***

Cust Item ID:

Required Date: 12/14/12 Req'd Qty: 10.00

**\*10\***

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start **\*NR1\***

QC:

Date:

SPC (Y/N):

Date:

Stop **\*NR2\***

Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Tool ID

Tool #

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

117

QC6- Inspect dimensions to drawing

0.00

**\*117\***

QC

Memo

0.00

*AS 21*

*BS 31*

*1*

Quality Control

118

0.00

**\*118\***

HandFinish

Memo

0.00

*1 13-6-14*

Hand-Finishing

REMOVE ALL PART MARKINGS

120

0.00

**\*120\***

Outsource4

Memo

0.00

*CL 13/06/18*

Outsource process - Anodize

HARD ANODIZE IAW MIL-A-8625 TYPE 3  
COLOUR BLACK

*210.20215*



**Work Order ID 93795****\*93795\***

Page 3

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Item ID: 647.9317

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**\*N900040100\***Setup Start **\*NS1\***

Revision ID:

Stop **\*NS2\***

Item Name: RH Bracket

Start Date: 11/26/12 Start Qty: 10.00

**\*10\***

Cust Item ID:

Required Date: 12/14/12 Req'd Qty: 10.00

**\*10\***

Customer:

Reference:

Approvals: Process Plan: Date: Tooling: Date:

Run Start **\*NR1\***

QC: Date: SPC (Y/N): Date:

Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

130

Receive &amp; Inspect for Damage &amp; Mat'l Certs

0.00

**\*130\***

Packaging

Memo

0.00

Packaging

\*\*\*IDENTIFY AS PER APICAL MPP-120 BY STAMPING P# AND REV\*\*\*

140

QC5- Inspect part completeness to step on W/O

0.00

**\*140\***

QC

Memo

0.00

Quality Control

150

Spray Painting per QSI005 4.2

0.00

**\*150\***

SprayPaint

Memo

0.00

Spray Painting

PRIME AS PER DWG NOTE #2

43/7/17 (1)

N/A

C213106118

M125452





# Work Order ID 93795

\*93795\*

Page 4

December 5, 2012 1:42:43 PM

Item ID: 647.9317

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\*N900040100\*

Setup Start \*NS1\*

Revision ID:

Stop \*NS2\*

Item Name: RH Bracket

Start Date: 11/26/12 Start Qty: 10.00

\*10\*

Cust Item ID:

Required Date: 12/14/12 Req'd Qty: 10.00

\*10\*

Customer:

Reference:

Approvals: Process Plan:

Date:

Tooling:

Date:

Run Start \*NR1\*

QC:

Date:

SPC (Y/N):

Date:

Stop \*NR2\*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

160 ~~QC14~~ Inspect Spray Paint

0.00

\*160\*

QC

Memo

0.00

Quality Control

170

Identify as per dwg & Stock Location:

0.00

\*170\*

Packaging

Memo

0.00

Packaging

190

QC21- Final Inspection - Work Order Release

0.00

\*190\*

QC

Memo

0.00

Quality Control

IX SQ  
13-7-18

13/7/24

W 1307-23



# Picklist Print

December 5, 2012 1:42:42 PM

Page 1

Work Order ID: 93795  
Parent Item: 647.9317  
Parent Item Name: RH Bracket

Start Date: 11/26/12  
Start Qty: 10.00

Required Date: 12/14/12  
Required Qty: 10.00

Comments: IPP REV:A NEW ISSUE 12-11-19 JLM VERIFIED BY:DD

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
647.9317P RH Bracket		Purchased	No				Each	0.0000		10			
M7075T6B1.500X8.500 7075-T6 BAR 1.500' X 8.500"		Purchased	No				f	0.0000		<del>2.7027027</del>			

M124030

2.0 @ 12+2-20



APICAL INDUSTRIES, INC.	ENGINEERING CHANGE NOTICE NO. 03209				SHEET 1 OF 2	
	DWG NO. 647.9300	REV: N/C	PREPARED BY A. QUAN	DATE: 11/09/11	EFFECT ON DWG <input type="checkbox"/> INC. <input checked="" type="checkbox"/> UNINC.	
	DWG TITLE: BRACKET					
APPROVED BY: ENGR <i>[Signature]</i>		MFG <i>[Signature]</i>		QC <i>[Signature]</i>		EFF: CURRENT ORDER AND STOCK
TRANSACTION CODES (TC): A-ADD C-CREATE R-REVISE D-DELETE		REASON: REVISED HOLE LOCATIONS ON 647.9314, ADDED HOLE 647.9315				

**SHEET 1, ZONE B3:**

NOTES: UNLESS OTHERWISE SPECIFIED

1 MATERIAL: ALUMINUM 7075-T651 PER AMS-QQ-A-250/12.

2 FINISH: HARD ANODIZE IAW MIL-A-8625 TYPE II, CLASS 2, COLOR: BLACK;  
PRETREAT PR-148 ADHESION PROMOTER, PRIME IAW MIL-P-23177J TYPE I, CLASS N.

3 DEBURR AND BREAK ALL SHARP EDGES.

4 IDENTIFY IAW MPP-120 LASER ENGRAVE CENTURY GOTHIC, 12 POINT P/N AND REVISION.

5 PART DIMENSIONS CONTROLLED BY CAD MODEL FILE: 647.9310 LH BRACKET.SLDPT, LAST MODIFIED 06-22-10

6 PART DIMENSIONS CONTROLLED BY CAD MODEL FILE: 647.9311 SUPPORT BRACKET.SLDPT, LAST MODIFIED 06-22-10

7 PART DIMENSIONS CONTROLLED BY CAD MODEL FILE: 647.9312 BRACKET.SLDPT, LAST MODIFIED 06-22-10

8 PART DIMENSIONS CONTROLLED BY CAD MODEL FILE: 647.9313 BRACKET.SLDPT, LAST MODIFIED 06-22-10

9 PART DIMENSIONS CONTROLLED BY CAD MODEL FILE: 647.9314 RETAINER BRACKET.SLDPT, LAST MODIFIED 09-26-11

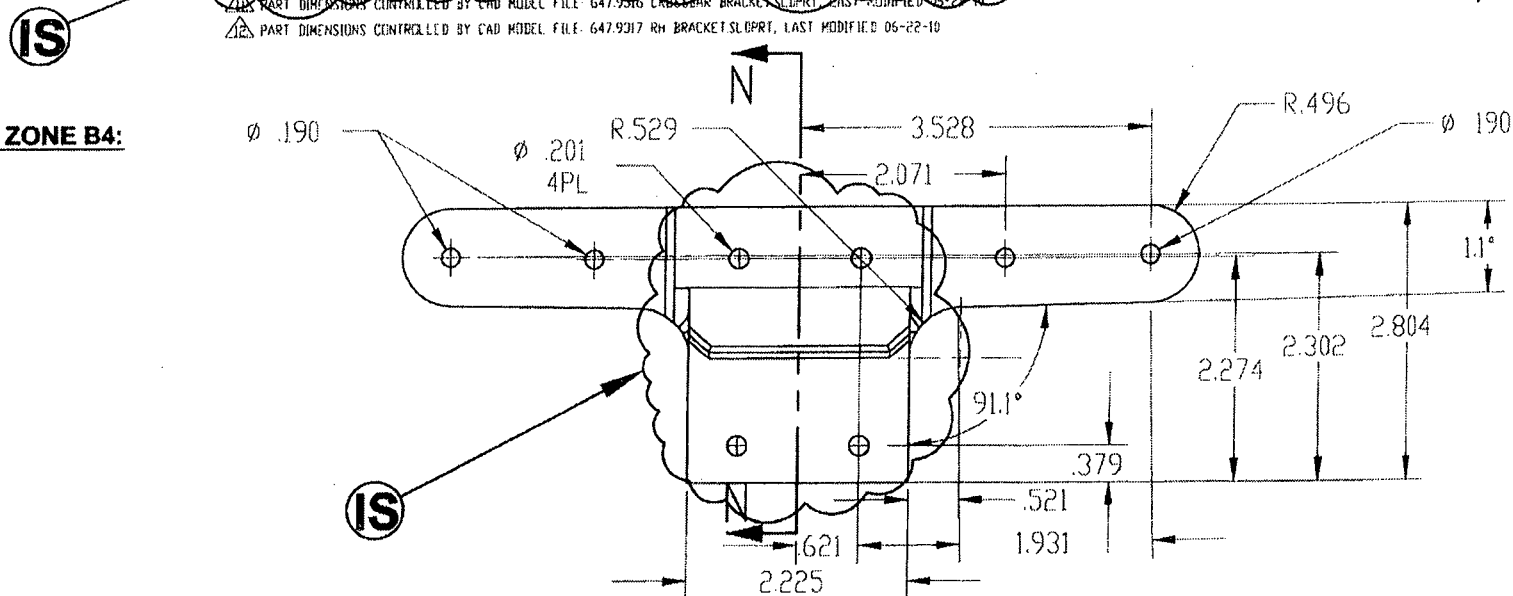
10 PART DIMENSIONS CONTROLLED BY CAD MODEL FILE: 647.9315 RECEPTACLE BRACKET.SLDPT, LAST MODIFIED 10-19-11

11 PART DIMENSIONS CONTROLLED BY CAD MODEL FILE: 647.9316 CRADLE BRACKET.SLDPT, LAST MODIFIED 06-22-10

12 PART DIMENSIONS CONTROLLED BY CAD MODEL FILE: 647.9317 RH BRACKET.SLDPT, LAST MODIFIED 06-22-10

SHOWN IN  
REFERENCE TO  
ENGINEERING  
UNCONTROLLED COPY  
SUBJECT TO AMENDMENTS  
WITHOUT NOTICE  
WORK ORDER  
NO. 93795 MJS  
12-11-28

**SHEET 7, ZONE B4:**

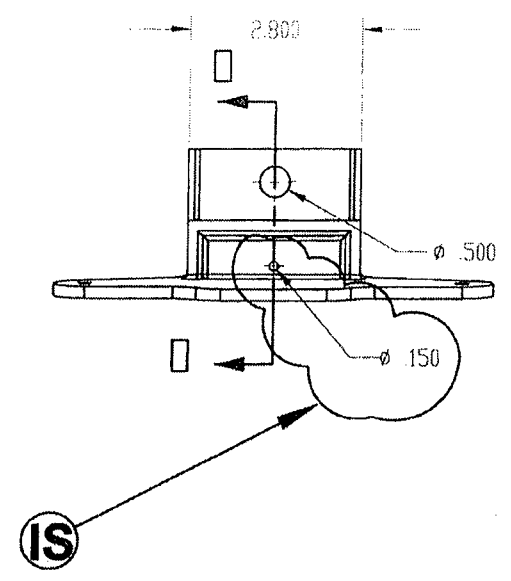


F/N	TC	PART NUMBER	QTY	DESCRIPTION	MATERIAL	SPECIFICATION
DOCUMENTS EFFECTED:				<input type="checkbox"/> MDL <input type="checkbox"/> INSTALL INSTRUC <input type="checkbox"/> ICA <input type="checkbox"/> BOM	CHANGE CATEGORY <input type="checkbox"/> MAJOR <input checked="" type="checkbox"/> MINOR	DER REVIEW REQUIRED <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO



93795

SHEET 8, ZONE B5:



F/N	TC	PART NUMBER	QTY	DESCRIPTION	MATERIAL	SPECIFICATION





93795

NOTES: UNLESS OTHERWISE SPECIFIED

1. MATERIAL: ALUMINUM 7075-T651 PER AMS-QQ-A-250/12.
2. FINISH: HARD ANODIZE IAW MIL-A-8625 TYPE III, CLASS 2. COLOR: BLACK;  
PRETREAT PR-148 ADHESION PROMOTER, PRIME IAW MIL P-23377J TYPE I, CLASS N.
3. DEBURR AND BREAK ALL SHARP EDGES.
4. IDENTIFY IAW MPP-120. LASER ENGRAVE CENTURY GOTHIC, 12 POINT P/N AND REVISION.
5. PART DIMENSIONS CONTROLLED BY CAD MODEL FILE: 647.9310 LH BRACKET.SLDPRT, LAST MODIFIED 06-22-10.
6. PART DIMENSIONS CONTROLLED BY CAD MODEL FILE: 647.9311 SUPPORT BRACKET.SLDPRT, LAST MODIFIED 06-22-10.
7. PART DIMENSIONS CONTROLLED BY CAD MODEL FILE: 647.9312 BRACKET.SLDPRT, LAST MODIFIED 06-22-10.
8. PART DIMENSIONS CONTROLLED BY CAD MODEL FILE: 647.9313 BRACKET.SLDPRT, LAST MODIFIED 06-22-10.
9. PART DIMENSIONS CONTROLLED BY CAD MODEL FILE: 647.9314 RETAINER BRACKET.SLDPRT, LAST MODIFIED 06-22-10.
10. PART DIMENSIONS CONTROLLED BY CAD MODEL FILE: 647.9315 RECEPTACLE BRACKET.SLDPRT, LAST MODIFIED 06-22-10.
11. PART DIMENSIONS CONTROLLED BY CAD MODEL FILE: 647.9316 CROSSBAR BRACKET.SLDPRT, LAST MODIFIED 06-22-10.
12. PART DIMENSIONS CONTROLLED BY CAD MODEL FILE: 647.9317 RH BRACKET.SLDPRT, LAST MODIFIED 06-22-10.

UNINCORPORATED ECN(s)

03209

		647.9317	RH BRACKET	△	△△
		647.9316	CROSSBAR BRACKET	△	△△
		647.9315	RECEPTACLE BRACKET	△	△△
		647.9314	RETAINER BRACKET	△	△△
		647.9313	BRACKET	△	△△
		647.9312	BRACKET	△	△△
		647.9311	SUPPORT BRACKET	△	△△
		647.9310	LH BRACKET	△	△△
	FIND #	PART #	DESCRIPTION	MAT'L	SPEC.
QTY	PARTS LIST				
NEXT ASSY (S)	<div> <div> <small>FORGOT DATE</small>  <small>DESIGN BY</small>  <small>647.8900</small> </div> <div> <small>DATE</small>  <small>06-22-10</small>  <small>CHECKED</small>  <small>R. ROSANO</small>  <small>P. PAVIS</small> </div> </div> <div> <small>APPROVED</small>  <small>APPROVAL</small>  <small>DATE</small>  <small>06-22-10</small>  <small>ECN/REACT NO.</small> </div> <div> <small>UNLESS OTHERWISE SPECIFIED</small>  <small>DIMENSIONS ARE IN INCHES</small>  <small>UNLESS NOTED OTHERWISE</small>  <small>2 PLACE DECIMALS ±.03</small>  <small>3 PLACE DECIMALS ±.010</small>  <small>ANGLES ±.5°</small> </div>				
			<b>APICAL INDUSTRIES</b> 2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92056-3512 (760)724-5300		
			BRACKETS		
			<small>REV</small> 0 07/16/10	<small>DWG. NO.</small> 647.9300	<small>REV.</small> N/C
			<small>SCALE</small> NONE <small>SHEET</small> 1 OF 9		



647.9310 SHOWN  
647.9317 OPPOSITE

8.200  
7.437  
5.547  
5.157  
3.322  
3.099  
2.210  
1.650  
1.615  
.755  
.469  
0  
2.849  
.870  
59.225  
.375  
1.395  
2.415  
3.616  
4.817  
5.150  
8.200

Ø.177 THRU  
5 PL

161.7°  
R58.424

Ø.194 THRU  
12 PL

R.100  
R.2.948

8.932  
8.400  
4.450  
3.735  
2.55  
.392  
143.285  
88.3°  
R.201  
177.4°  
R142.538  
5.606  
R.369  
R.050  
90.0°  
2.877  
2.172  
90.0°  
.302

6.162  
7.285  
7.324  
8.407  
10.267  
10.742  
11.277  
11.372  
11.532

Ø.614  
3.85  
.420  
1.752  
1.762  
2.877

R.100  
R.218, ∇.105  
3 PL  
3 A4  
3 B2  
3 C5  
3 B6  
3 C3

.295  
3.000  
2.210  
.683  
.651  
.692  
.826

.610  
R.201  
R.100  
.302

APICAL INDUSTRIES  
2608 TEMPLE HEIGHTS DR.  
OCEANSIDE, CA. 92056-3512 (760) 724-5300

BRACKETS

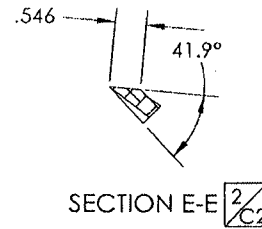
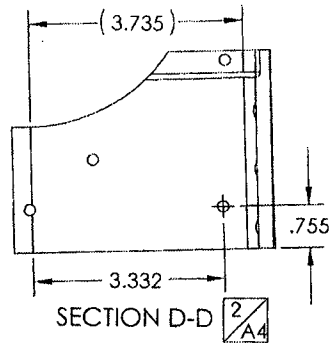
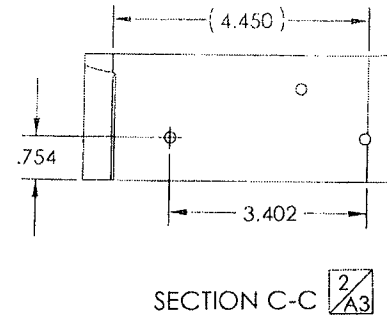
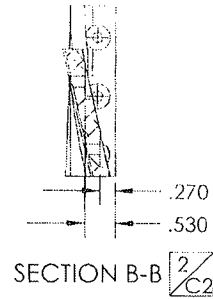
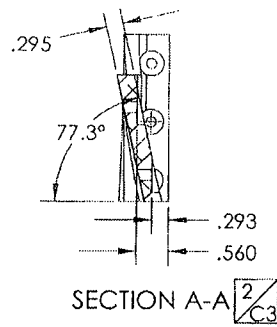
647.9300

SCALE NONE

SHEET 2 OF 9



93795



<small>           DESIGNER            DRAWN BY            CHECKED BY            APPROVED BY            DATE            CONTRACT NO.         </small>		<b>APICAL INDUSTRIES</b> 2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92056-3512 (760)724-5300	
<small>           UNLESS OTHERWISE SPECIFIED            DIMENSIONS ARE IN INCHES            DIMENSIONS ARE            3 PLACE DECIMALS .001            ANGLES ± .5°         </small>		<small>           SWR            0         </small>	<small>           CAD CODE            07AN26         </small>
<small>           SCALE: NONE         </small>		<small>           DWG. NO.            647.9300         </small>	<small>           REV.            N/C         </small>
<small>           SHEET 3 OF 9         </small>		<small>           BRACKETS         </small>	



Technical drawing of a bracket assembly, showing a side view and a cross-section F-F.

**Side View Dimensions:**

- Hole diameter:  $\text{Ø}.201 \text{ THRU } 10 \text{ PL}$
- Chamfer:  $.25 \times 45^\circ \text{ CHAM. } 4 \text{ PL}$
- Vertical dimensions:  $1.244$ ,  $.406$ ,  $.386$
- Horizontal dimensions:  $1.328$ ,  $2.500$
- Section line: G-H

**Cross-section F-F Dimensions:**

- Angle:  $42.6^\circ$
- Radii:  $R142.059$ ,  $R.085 \text{ TYP.}$
- Thicknesses:  $.185$ ,  $.125$ ,  $.875$
- Horizontal dimensions:  $1.650$ ,  $5.875$ ,  $10.875$ ,  $16.750$
- Vertical dimensions:  $142.062$

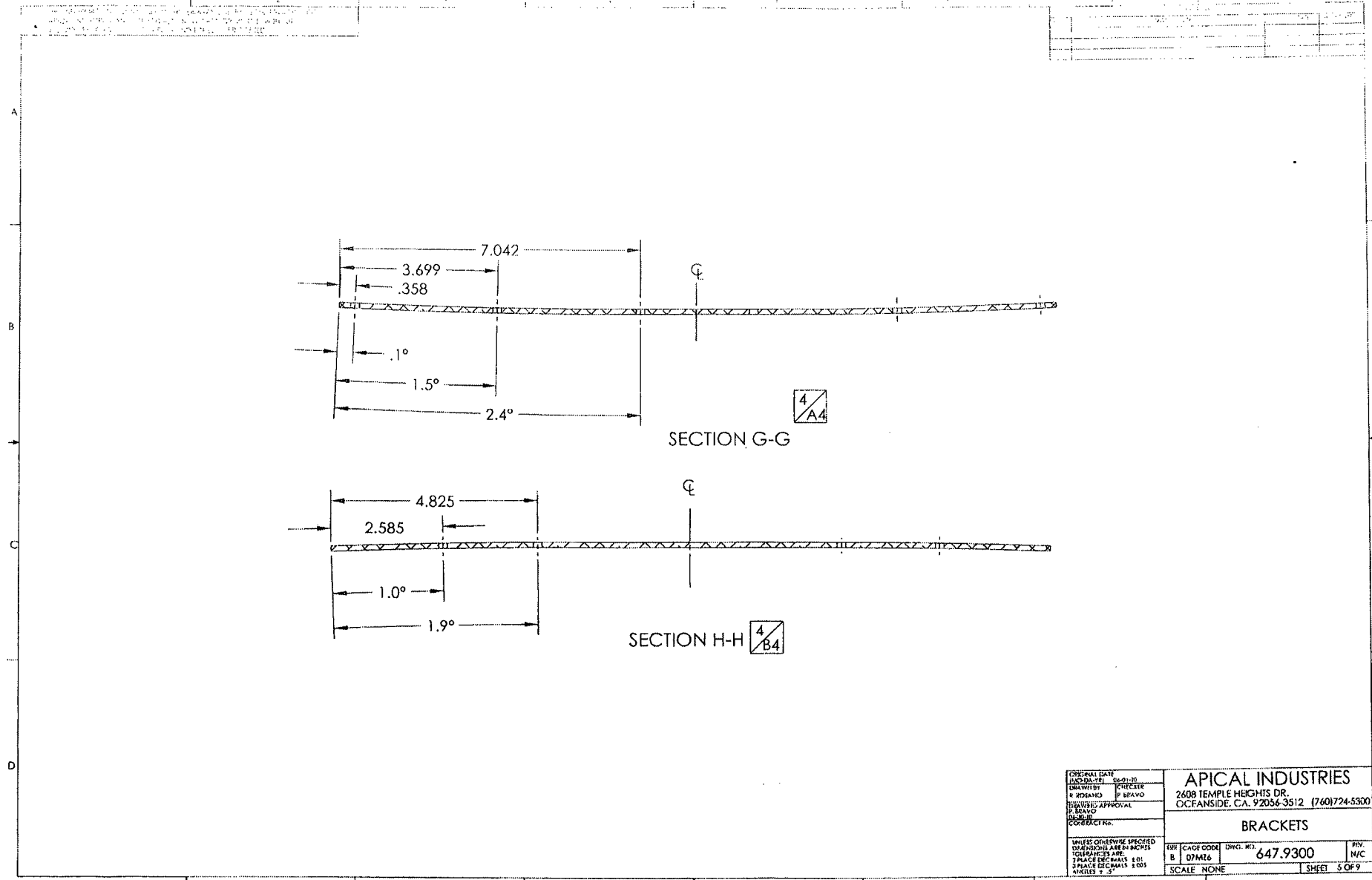
**Title Block:**

APICAL INDUSTRIES	
2608 TEMPLE HEIGHTS DR.	
OCEANSIDE, CA. 92056-3512 (760)724-5300	
BRACKETS	
DATE: 07/11/86	DWG. NO: 647.9300
SCALE: NONE	SHEET: 4 OF 9



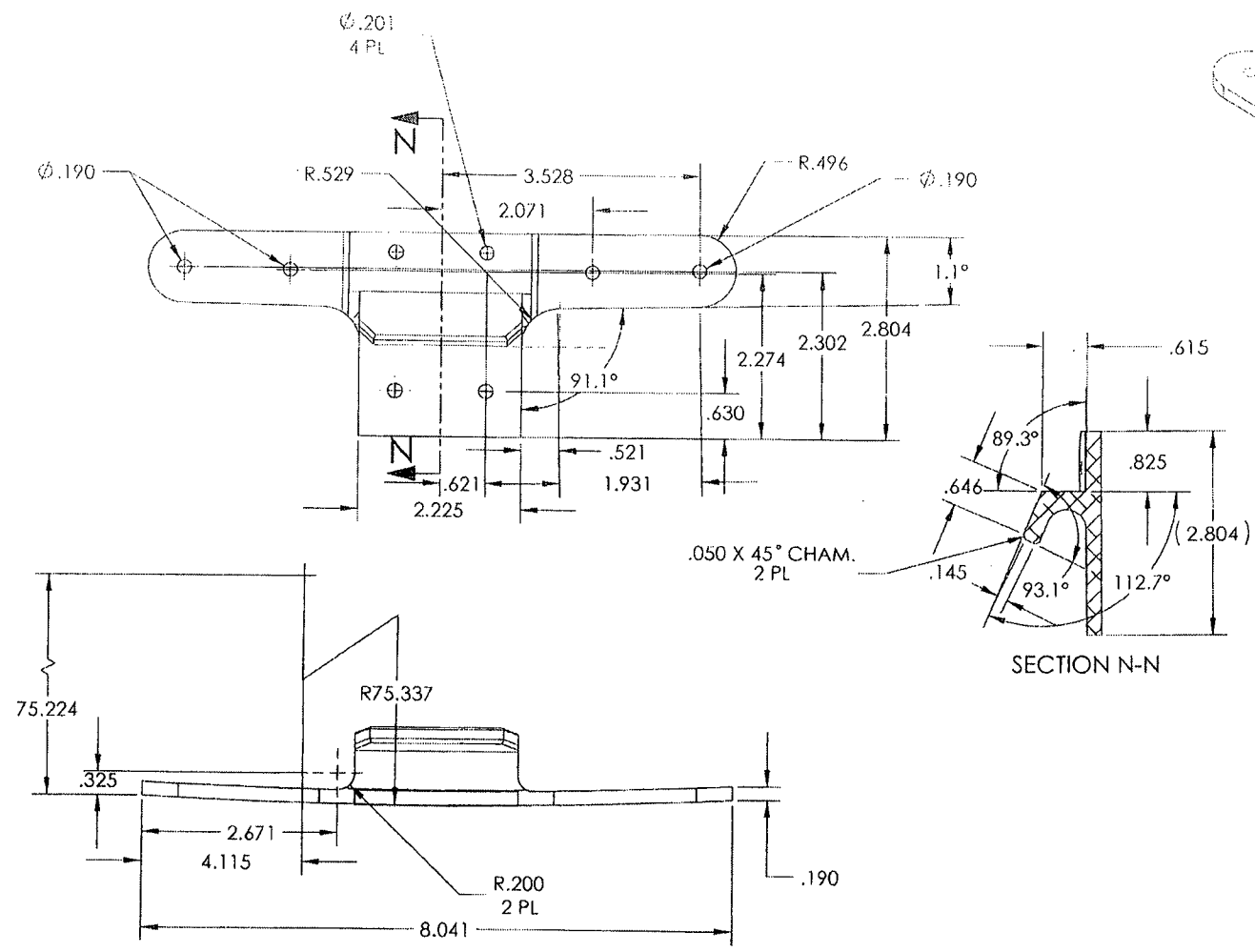


93795



<small>           ORIGINAL DATE            DESIGNED BY            DRAWN BY            CHECKED BY            APPROVED BY            DATE         </small>		<b>APICAL INDUSTRIES</b> 2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92056-3512 (760)724-5300	
<small>           UNLESS OTHERWISE SPECIFIED            DIMENSIONS ARE IN INCHES            TOLERANCES ARE:            3 PLACE DECIMALS ±.01            ANGLES ±.5°         </small>		<b>BRACKETS</b>	
<small>           SURF            B         </small>	<small>           CAGE CODE            D7M26         </small>	<small>           DWG. NO.            647.9300         </small>	<small>           REV.            N/C         </small>
<small>           SCALE NONE         </small>		<small>           SHEET 5 OF 9         </small>	

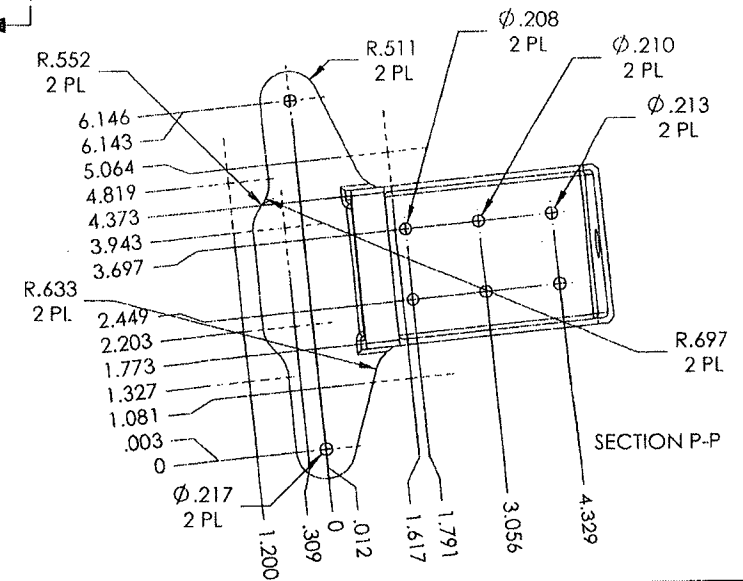
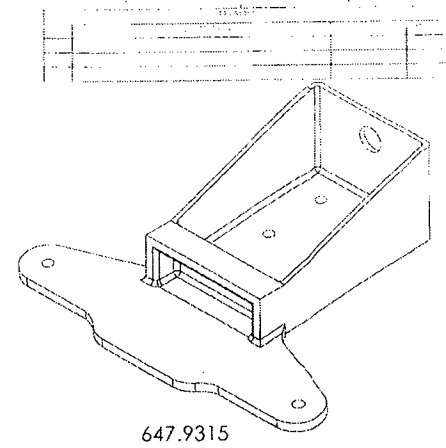
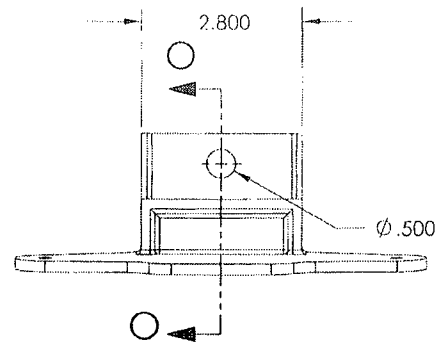
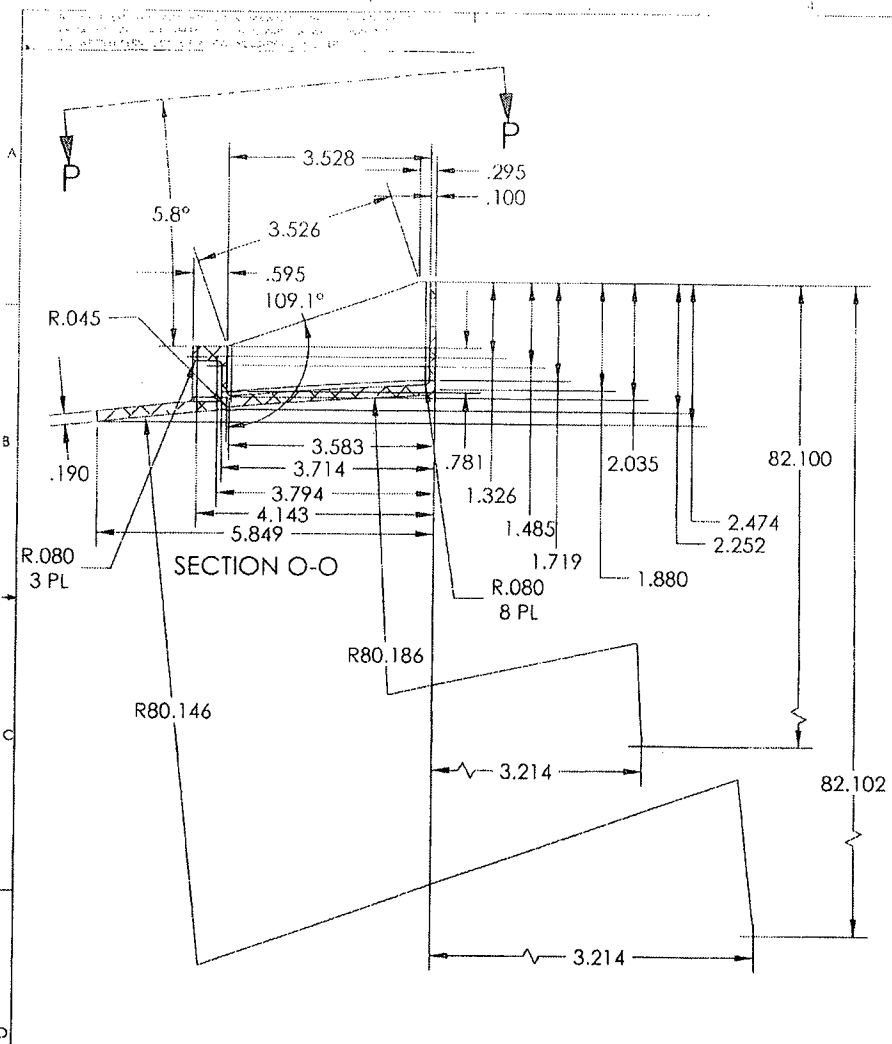




ORIGINAL DATE 06/04/1991 00:01:05	APICAL INDUSTRIES		
RAWING OFFICER P. RIZIANO	2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92056-3512 (760)724-5300		
PLANNING APPROVAL 06/04/91	BRACKETS		
CONTRACT NO.			
BRISSETT/OTTERBEIN/STROGAN DRAWING NUMBER 06-104-0000 SIZES ARE: 2 PLACE ORIGINALS IN 1 1 PLACE ORIGINALS IN 2 ANGLES 2-3			
REV	CAGE CODE	QTY	NO.
06	07M16	647.9300	REV
SCALE NONE			SHEET 7 OF 9



93795



CHECKED: DATE 1/20/04 BY: 04-01-10 DRAWN BY: E. ROJAS E. ROJAS P. BRAVO DESIGNED BY: E. ROJAS E. ROJAS CONTRACT NO:		<b>APICAL INDUSTRIES</b> 2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA 92056-3512 (760) 724-5300	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 3 PLACE DECIMALS .003 2 PLACE DECIMALS .010 ANGLES .5°		DTD: CASH CODE B 07M26	DTD: NO 647.9300
SCALE: NONE		REV: N/C SHEET 8 OF 9	



93795

A

R.495  
4 PL

R1.230  
2 PL

R

R

3.220  
2.729  
2.215

647.9316

B

1.705  
0  
.015

135.1°

135.1°

0

.495

2.902

4.628

6.651

8.377

10.784

11.279

C

3.178

.087

.184

Q

Q

R82.304

82.303

.194

.10 X 45 CHAM.  
TYP.

SECTION Q-Q

D

5.242

3.705

2.169

.627

1.6°

2.7°

3.8°

SECTION R-R

ORIGINAL DATE 08-01-10  
DRAWN BY CHICZFR  
F. ROBAHO P. SPANO  
DESIGNED APPROVAL  
GROUP 10  
CONTRACT NO.

UNLESS OTHERWISE SPECIFIED  
DIMENSIONS ARE IN INCHES  
TOLERANCES ARE  
1 PLACE DECIMALS - .05  
2 PLACE DECIMALS - .010  
ANGLES - .5°

APICAL INDUSTRIES  
2608 TEMPLE HEIGHTS DR.  
OCEANSIDE, CA. 92056-3512 (760)724-5300

BRACKETS

SHEET 647.9300  
SCALE NONE  
SHEET 9 OF 9

REV  
N/C







2228 Gladwin Cres.  
Ottawa, Ont.  
K1B 4S6

Telephone (613) 899-2405  
Fax (613) 226-1719

## Certificate of Compliance

To:  
Dart Aerospace Ltd.  
1270 Aberdeen Street  
Hawkesbury Ont.  
K6A 1K7

Po Number	Part Number	Quantities
18599	647.9310	10
	647.9317	1

It is hereby certified that all articles mentioned above are in conformance with the requirements, specification and drawings as listed on customer purchase order number, 18599 issued by Dart Aerospace Inc.

\_\_\_\_\_  
Andrew Malcolm  
Inspector  
Archer Precision Inc.  
2228 Gladwin Cress.  
Ottawa, Ontario  
K1B 4S6





# Inspection Report

Customer Name <b>Dart Aerospace</b>			QTY <b>1</b>	DWG # <b>647.9317</b>		REV. <b>N/C</b>	Part Name <b>Brackets</b>			Date <b>16 JAN / 13</b>	Lot#	Job # <b>674-5</b>		
Page 1 of ____		Inspection Interval		Special Notes										
Item #	DWG. Dim	Tolerance	Operator First Off	QA First A R	QA Final A R	2	3	4	5	6	7	8	9	10
	Rev	N/C	✓	✓	✓									
	MAT	Supplied	✓	✓	✓									
	SUB	-												
	Deburr	Yes	✓	✓	✓									
1	.610	±.005	PP	✓	✓									
2	R.201	±.005	PP	✓	✓									
3	R.100	±.005	PP	✓	✓									
4	.302	±.005	.301	✓	✓									
5	R.100	±.005	PP	✓	✓									
6	R.218	±.005	.220	✓	✓									
7	↓.105	±.005	.102	✓	✓									
8	3PL	-	✓	✓	✓									
9	.683	±.005	PP	✓	✓									
10	.295	±.005	.294	✓	✓									
11	3.000	±.005	3.000	✓	✓									
12	2.210	±.005	2.209	✓	✓									
13	.651	±.005	PP	✓	✓									
14	.692	±.005	PP	✓	✓									
15	.826	±.005	PP	✓	✓									
16	.426	±.005	PP	✓	✓									
17	.302	±.005	.301	✓	✓									
18	90.°	±.5°	PP	✓	✓									
19	R.369	±.005	PP	✓	✓									
20	R.050	±.005	PP	✓	✓									
21	R142.53	±.005	PP	✓	✓									
22	177.4°	±.5°	PP	✓	✓									



23	.88.3°	±.5°	PP	✓	✓
24	R.201	±.005	PP	✓	✓
25	.392	±.005	PP	✓	✓
26	.255	±.005	PP	✓	✓
27	3.735	±.005	PP	✓	✓
28	4.450	±.005	PP	✓	✓
29	90.°	±.5°	PP	✓	✓
30	2.172	±.005	PP	✓	✓
31	2.877	±.005	PP	✓	✓
32	8.400	±.005	8.400	✓	✓
33	8.932	±.005	PP	✓	✓
34	Ø.614	±.005	.614	✓	✓
35	.385	±.005	.385	✓	✓
36	.420	±.005	.420	✓	✓
37	1.752	±.005	1.752	✓	✓
38	1.762	±.005	1.762	✓	✓
39	2.877	±.005	2.877	✓	✓
40	6.162	±.005	PP	✓	✓
41	7.285	±.005	PP	✓	✓
42	7.324	±.005	PP	✓	✓
43	8.407	±.005	PP	✓	✓
44	10.267	±.005	PP	✓	✓
45	10.742	±.005	PP	✓	✓
46	11.277	±.005	PP	✓	✓
47	11.372	±.005	PP	✓	✓
48	11.532	±.005	11.531	✓	✓
49	R2.948	±.005	PP	✓	✓
50	.469	±.005	PP	✓	✓
51	.755	±.005	PP	✓	✓
52	1.615	±.005	PP	✓	✓
53	1.650	±.005	PP	✓	✓
54	2.210	±.005	PP	✓	✓
55	R.100	±.005	PP	✓	✓
56	3.099	±.005	PP	✓	✓
57	3.322	±.005	PP	✓	✓









## Jean-Luc Menard

---

**From:** Alex Mazerolle <alex@archerprecision.ca>  
**Sent:** May-31-13 11:11 AM  
**To:** Jean-Luc Menard  
**Subject:** RE: 647.9317 REJECTED PARTS

Hi Jean-Luc,

The error was on the programing side. It was our set-up part.

Alex Mazerolle

President

Tel: 613-226-1579

Fax: 613-226-1719

-----Original Message-----

From: Jean-Luc Menard [<mailto:jmenard@dartaero.com>]

Sent: Friday, May 31, 2013 10:38 AM

To: Alex Mazerolle - ARCHER PRECISION ([Alex@archerprecision.ca](mailto:Alex@archerprecision.ca))

Subject: 647.9317 REJECTED PARTS

Hi Alex,

Qc was looking for the cause of these rejection(c bores too deep) to close out the NCR.

Thx

JL

Jean-Luc Ménard

Production Engineering Supervisor

DART AEROSPACE

T 1 613 632-5200 > 227

F 1 613 632-5246

1 800 556- 4166

[www.dartaerospace.com](http://www.dartaerospace.com)<<http://www.dartaerospace.com/>>

[[cid:image001.png@01CE5643.CC2075C0](#)]





A.T.G. Industries Inc.  
731, rue Industrielle Rd.  
PLATING DEPARTMENT  
Rockland, On K4K 1T2  
Canada  
Ph: (613) 446-4544  
Fax: (613) 446-4556

### Pack List

Number: 62506

Date: 15-Jul-13

To

DART AEROSPACE LTD  
1270 ABERDEEN ST.  
HAWKESBURY, ON K6A 1K7  
Canada

Ship To

DART AEROSPACE LTD  
1270 ABERDEEN ST.  
HAWKESBURY, ON K6A 1K7  
Canada

Ph: 613-632-5200

Fax: 613-632-1185

Ph: 613-632-5200

Fax: 613-632-1185

Terms	Ship Via

Quantity	Description	Rev:
1 lot	Part: ASST  6 PCS D2224 RED ANODIZE MIL-A-8625 TYPE II CLASS 2  1 PC 647.0410 10 PCS 646.3110 20 PCS 646.3712 11 PCS 646.3713 8 PCS 647.9312 30 PCS 647.9313 9 PCS 647.9314 1 PC 647.9317  HARD ANODIZE BLACK MIL-A-8625 TYPE III CLASS 2  PRIME MIL-P-23377J TYPE I CLASS N Job: 20130436	
	PO: 20215	Line:

#### Certificate of Conformance

A.T.G. Industries certifies that all items in this shipment are in conformance with all requirements, specifications and drawings referenced in the purchase order.

ISO 9001 : 2008 REGISTERED  
ATG SALES-2010 TERMS APPLY

DATE: 15/7/13

CERTIFIED SIGNATURE: 

RECEIVER SIGNATURE: \_\_\_\_\_

